

NOTES ON AUSTRALIAN COLEOPTERA, WITH
DESCRIPTIONS OF NEW SPECIES.

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PART IV.

The following notes and descriptions of new genera and species are directly or indirectly the outcome of examining a small collection of *Carabidæ* together with a few *Longicornes* sent to me by Mr. W. D. Randall from Barrow's Creek in Southern tropical Australia, and—from collections recently received from Central Australia (Mr. Wild) and the Northern Territory (Dr. and Mrs. Bovill)—such species as are connected with those Mr. Randall sent. I deeply regret to mention that Dr. and Mrs. Bovill have now left Australia and so put an end to their valuable and highly intelligent explorations.

LEBIIDES.

PHLÆOCARABUS.

I have several species in my collection which appear to belong to this genus. The characters given by Sir William Macleay in the "Insects of Gayndah" (Trans. Ent. Soc. N.S.W. II. p. 85) distinguish it satisfactorily from all other Australian genera of *Lebiidæ* yet described, and the species before me present all the characters specified very satisfactorily. In all of them the head is rather strongly dilated laterally behind the eyes (as in *Xanthophœa*) which causes the part of the head immediately in front of the neck to be wider than in some allied forms. No doubt this is what Sir W. Macleay refers to when he says "head suddenly narrowed behind the eyes into a distinct neck." The claws are simple.

[While this memoir has been in the printer's hands I have received from Mr. T. G. Sloane, of Sydney, the information that having (in compliance with my request) compared the following species with *Phlæocarabus Mastersi*, Macl., he thinks they are generically distinct. I do not doubt the correctness of Mr. Sloane's opinion, and am very glad to have received it in time to insert this note in the present memoir. Nevertheless, since these species undoubtedly present the characters attributed to *Phlæocarabus* in the published diagnosis of the genus, I think I do right in calling them by the name, and leaving them to bear it until the genus is re-characterized. I may say that Mr. Sloane draws attention to the much smaller size of the 2nd joint of the antennæ, and the wider and more *Xanthophaea*-like head in *Phlæocarabus*.]

PHLÆOCARABUS UNIMACULATUS, sp.nov.

Sat elongatus; sat depressus; minus nitidus; testaceus, capite prothoraceque plus minus rufescentibus, elytris macula magna communi nigra antrorsum in sutura producta ornatis; capite prothorace longiori, subtiliter sat sparsim punctulato; prothorace capite vix latiori, quam longiori vix latiori, basi quam antice paullo angustiori, canaliculato, transversim subtilissime strigoso, latitudine majori paullo ante medium posita, angulis (anticis subrotundatis) posticis distinctis obtusis, lateribus sat rotundatis pone medium vix sinuatis; elytris sat fortiter striatis, apice singulatim late rotundatis, interstitiis subconvexis, striis latera versus obsolete.

[Long. $2\frac{1}{5}$, lat. 1 line.

Var. Elytris juxta scutellum utrinque macula parva fusca ornatis.

The spot on the elytra is diamond-shaped, but when closely examined its outline is seen to consist of about 16 distinct lines, so that it is really a 16-sided figure; it extends laterally two-thirds (or in some examples half) across each elytron; its hind point is about $\frac{1}{5}$ of the length of the suture from the apex of the same and is produced (gradually narrowing) forward to a point

not much behind the scutellum. The width across the prothorax is scarcely half as great as across the elytra.

S. Australia ; Adelaide ; also near Port Augusta.

PHLŒOCARABUS UMBRATUS, sp.nov.

Minus elongatus ; minus depressus ; minus nitidus ; testaceus, capite antice (et abdomine maculatim) infuscatis, elytris pone medium fascia lata angulata fusca (latera haud attingenti) ornatis ; capite prothorace longiori, subtilissime vix manifeste punctulato ; prothorace capite paullo latiori, quam longiori quarta parte latiori, basi quam antice sat angustiori, canaliculato, transversim subtilissime strigoso, latitudine majori paullo ante medium posita, angulis (anticis rotundatis) posticis distinctis obtusis, lateribus sat rotundatis pone medium sinuatis ; elytris minus fortiter striatis, apice conjunctim rotundato-truncatis, striis latera versus obsoletis, interstitiis planis. [Long. $2\frac{3}{5}$ - $3\frac{1}{5}$, lat. 1 - $1\frac{1}{2}$ lines.

The lateral extension of the fascia on the elytra is somewhat greater than of the spot on the elytra of *P. unimaculatus*, its front margin is angulated on the suture (which it crosses slightly in front of the middle) and also on each side of the same ; it is not extended up the suture farther forward than it is at the lateral angulations ; its hind margin is angulated on the suture and also at two or three points on either side, the sutural angulation extending furthest back (in some examples nearly to the apex) the lateral angulations being successively less prolonged hindward ; in some examples fine fuscous lines run out hindward at intervals along the hind margin of the fascia.

A distinctly wider and less depressed species than the preceding, the prothorax distinctly transverse and distinctly more than half as wide as the elytra with front angles evidently less produced forward and the width at the base evidently less in proportion to the width of the front ; the pattern on the elytra very different and the interstices of the same much flatter.

Near Adelaide ; usually in flood refuse.

PHLÆOCARABUS CRUDELIS, Newm. sp.

(? *Dromius crudelis*, Newm.).

The insect to which I have applied this name is probably identical with that on which the brief description of *Dromius crudelis*, Newm., was founded. That description deals only with colour and markings,—and those only in very general terms. If I should prove to be wrong in this identification there will be no harm done as in that case the probability is that Newman's insect is not a *Phlæocarabus*, and then both names can stand.

The species before me will be thus characterized:—

Sat elongatus ; sat depressus ; minus nitidus ; testaceus ; capite supra, elytrorum macula (forma complicata) magna, et sternis abdomineque latera versus (hoc apice quoque), nigris ; capite prothorace longiori, confertim subtiliter rugato ; prothorace capite vix latiori, quam longiori vix quarta parte latiori, basi quam antice sat angustiori, canaliculato, transversim subtilissime strigoso, latitudine majori paullo ante medium posita, angulis (anticis rotundatis) posticis distinctis obtusis, lateribus sat rotundatis pone medium sinuatis ; elytris sat fortiter striatis, apice singulatim late rotundatis, interstitiis subconvexis. Long. $3-3\frac{2}{5}$, lat. $1-1\frac{1}{5}$ (vix) lines.

The black patch on the elytra occupies the greater part of the surface ; the hinder portion resembles the dark fascia of *P. umbratus* but is extended nearly to the lateral margins ; the middle of the anterior edge, however, of that fascia is continued widely forward and then again dilates into a large quadrate patch almost or quite touching the base. It should be noted that the prothorax is *reddish* testaceous, the other pale parts *yellowish*.

Apparently common in various parts of S. Australia ; it occurs also in Western Australia.

ECTROMA, gen.nov.

In the Berliner Ent. Zeit. 1873, p. 54, note, the Baron de Chaudoir stated that *Cymindis inquinata*, Er., *Dromius tridens*,

Newm., and *Lebia benefica*, Newm., and *civica*, Newm., require the foundation of a new genus near *Sarothrocrepis*. De Chaudoir's lamented death rendered abortive the intention he appears to have entertained of dealing further with the subject at a later date, and I cannot find that any other author has dealt with it; I therefore propose for this genus the name *Ectroma*. The species from King's Sound described by Sir William Macleay under the name *Sarothrocrepis* probably belong to this new genus, which differs from *Sarothrocrepis* by the intermediate tarsi in the male not dilated nor bearing (except on the apical joint) a dense clothing of hairs beneath, by the shorter labrum, the apical joint of the labial palpi not "compressed, dilated and truncate at the apex," and the ligula longer as compared with its paraglossæ. Like *Sarothrocrepis*, its mentum has a long median tooth (which however is more pointed), the 4th joint of the tarsi is bilobed, the claws are pectinate, and in the male the apical ventral segment has the apical margin nicked in the middle. The genus is extremely near *Lebia*, but differs in the well-defined tooth of its mentum. From *Eulebia*, Macl., it differs by the less strongly dilated 4th joint of the tarsi, and from *Lachnoderma*, Macl., by the non-securiform apical joint of the labial palpi.

SAROTHROCREPIS SUAVIS, sp. nov.

Sat brevis; glabra; nitida; pallide testacea, elytris postice plaga magna communi nigra ornatis; capite prothoraci longitudine sat æquali, subtiliter coriaceo; prothorace capite dimidia parte latiori, quam longiori plus dimidia parte latiori, basi quam antice vix tertia parte latiori, subtiliter canaliculato, supra obscure transversim strigoso, latitudine majore mox ante medium posita, angulis anticis rotundatis, posticis rotundato-obtusis, lateribus leviter rotundatis pone medium sinuatis, sat late deplanatis; elytris sat fortiter striatis, apice oblique sinuato-truncatis, interstitiis leviter convexis. [Long. $2\frac{2}{5}$, lat. $1\frac{1}{5}$ lines.

Maris palporum labialium articulo ultimo sat fortiter dilatato-compresso, haud securiformi, apice truncato; segmento ventrali apicali medio fortiter subtriangulariter emarginato; tarsorum

anticorum articulis basalibus 4 dilatatis subtus sat dense squamosis, intermediorum vix dilatatorum articulo primo apice 3que sequentibus subtus squamosis.

The black spot on the elytra is sharply defined and very conspicuous; it touches the apex in a point on the suture, thence its outline runs in a sinuate curve forward and outward on either side nearly to the lateral margin at a point considerably behind its middle, whence it turns towards the suture parallel to the base of the elytra to about the 5th stria, thence it runs up the elytron (but obliquely towards the suture) to a point not very much behind the middle of the same, and almost on the 4th stria where it makes a round turn and runs obliquely down the elytron to the suture. The prothorax, compared with that of *S. posticalis*, Guér., is more transverse and less narrowed in front and has the hind angles more rounded off. The black spot on the elytra somewhat resembles in form that on the elytra of *S. corticalis*, but is of less zigzag outline, extends much less forward, and is very much more sharply defined and conspicuous.

Port Lincoln, S.A.; also near Adelaide.

COPTODERIDES.

PHILOPHLÆUS EUCALYPTI, Germ.

This species is unsatisfactorily treated by de Chaudoir in his "Mem. sur les Coptoderides," 1869. The description of it is limited to the statement that it is very close to *intermedius*, Chaud., and differs from the latter in a few specified characters among which the piliferous punctures of the prothorax are not included. In *intermedius* they are said to be only two on each side. In describing *P. obtusus* the author states that "as in *Eucalypti*" there are only 2 piliferous punctures on either side, but a little further on we are informed that *P. planus*, Newm., has 4 piliferous punctures on either side "placed as in *Eucalypti*." As it is quite impossible to make anything of de Chaudoir's remarks on this species, and as there can be little doubt that a well known species occurring commonly in many parts of S. Australia is that which Germar had before him, I subjoin a description of this latter, which I am

quite satisfied is the true *Eucalypti*; it is probably the species that de Chaudoir calls by the name.

Pubescens; sat parallelus; testaceus vel rufo-testaceus; elytris (marginibus lateralibus et vitta discoidali postice gradatim attenuata testaceis exceptis) nigro-piceis, abdominis apice infuscato; prothorace utrinque punctis setigeris 5 instructis, angulis posticis vix distinctis; elytris modice (ut *P. australis*) punctulatis substriatis, interstitiis leviter convexis. [Long. $4\frac{3}{5}$ - $5\frac{1}{5}$, lat. 2 - $2\frac{1}{5}$ lines.

Maris tarsorum intermediorum articulis 1° (apice) et 2° subtus spongiosis.

Apart from the sexual characters this species is excessively close to *P. australis*, Dej., from which it differs as follows:—its average size is distinctly smaller; its prothorax is very evidently shorter (being slightly more than $\frac{2}{3}$ again as wide as its length down the middle) and is a little more emarginate in front; the yellow lateral margin of the elytra is wider (especially a little behind the base where it is more than half as wide as the interval between it and the juxta-sutural yellow vitta) and the juxta-sutural vitta is shorter (scarcely reaching into the apical $\frac{1}{5}$ of the elytron), with its hinder part gradually and strongly narrowed. The puncturation scarcely differs from that of *C. australis*, Dej. The suture is narrowly rufo-testaceous, this colour being a little dilated immediately behind the scutellum.

Of the previously described species of *Philophlœus* having the 3rd joint of the intermediate tarsi not spongiose below and the elytra with markings of the same type as those of *P. australis*, only two others have 4 or 5 setigerous points on the border of the prothorax and these (*puberulus*, Chaud., and *quadripennis*, Chaud.), have the puncturation finer and denser than in *P. australis*, while the former has the juxta-sutural yellow elytral vitta not at all narrowed (“nullement amincie”) hindward, and the latter *inter alia* has the prothorax less strongly emarginate in front than that of *P. australis*. I have seen a fairly long series of both sexes and find scarcely any variation.

S. Australia; I have not seen specimens from further East than Yorke's Peninsula.

PHILOPHLÆUS FUSCIPENNIS, Germ.

This name should drop out of the Catalogue, as the description is certainly insufficient for positive identification, and it refers almost certainly to one of the insects described by the Baron de Chaudoir in 1869; the Baron thought it to be probably his *immaculatus* or *planus*. It appears to me more likely to be his *unicolor*, but as there seems to be no probability of arriving at any certainty on the point it would be better to treat the name as though it were non-existent.

PHILOPHLÆUS PLANUS, Chaud.

My collection contains a good many specimens which appear to appertain to this species. Unfortunately the description does not give any account of the colour of the prothorax. In my examples this segment is unicolorous with the elytra, having like them, a pale border. De Chaudoir also omits mentioning the colour of the elytra, merely remarking that they are devoid of pattern. My examples have brown elytra with a pale border. According to the description this species is distinguished from *unicolor inter alia* by its smaller size, but my largest examples are not smaller than the smallest measurements given for *unicolor*. The shortness of the elytra in proportion to their breadth, the evidently greater concavity of the front outline of the prothorax, and the greater contraction of this segment behind making the hind angles less marked appear however to be good characters, but (as de Chaudoir says) the two species are certainly very close to each other. I find that the number of piliferous punctures on the sides of the prothorax varies from 4 to 6.

PHILOPHLÆUS OPACICEPS, sp.nov.

Pubescens; minus parallelus; testaceus vel rufo-testaceus; elytris (marginibus lateralibus exceptis) et abdominis marginibus lateralibus, infuscatis; capite subtiliter coriaceo et sparsius subtilius leviter punctulato; prothorace transverso subcordato, antice

fortiter emarginato, angulis posticis distinctis subrotundatis, basi bisinuata media parte late leviter lobata; elytris creberrime subtilissime punctulatis. [Long. $3\frac{1}{5}$ - $4\frac{1}{2}$, lat $1\frac{1}{5}$ -2 lines.

Maris tarsi intermediis simplicibus.

This species seems intermediate between *Philophæus* and *Agonocheila*,—the latter of which Baron de Chaudoir himself stated to be in strictness a mere subsection of *Philophæus*. Its tarsi are of *Agonocheila*; in other respects it is a *Philophæus*. It differs from all its described allies in its head being subopaque through minute coriaceousness, and also sparingly sprinkled with faintly impressed punctures. The prothorax is extremely like that of *P. unicolor*, Chaud., but is slightly less transverse, with the front margin much more strongly concave and the hind angles a little less defined. The puncturation of the elytra is much finer and closer than in any other of the species of *Philophæus* having elytra without discal markings. From *planus* and *unicolor* it differs by its less parallel form. Its superficial resemblance to *P. immaculatus*, Chaud., is most extraordinary; but it differs from it in the sculpture of the head and elytra, in the less transverse prothorax (which is more strongly emarginate in front), and in the sexual characters of the male. The sides of the prothorax bear two or three setæ in front of the middle, one close to the middle, and one at the basal angle.

S. Australia; under bark of Eucalyptus at Moonta, Port Augusta, and Port Lincoln.

AGONOCHEILA CRIBRIPENNIS, Chaud.

I possess specimens agreeing perfectly in respect of colour and markings with the description of this insect, but which are certainly only varieties of *A. lutosa*, Newm. Baron de Chaudoir says that *cribripennis* differs from *lutosa* in the puncturation of the elytra (which these examples do not, at any rate not in any invariable manner) as well as in colour and markings, and implies that there are some other distinctions (*e.g.*, in the erect hairs of the prothorax), so it is quite possible that *cribripennis* is

a good species, closely resembling in colour and markings some varieties of *lutosa*. My collection contains several specimens intermediate in markings between those referred to above and typical *lutosa*, and some in which the dark markings are still more reduced till they consist of a mere infuscation of the front of the suture and a faint shading near the lateral margin. The species is common in South Australia.

SCARITIDES.

PLATYTHORAX (CARENUM) TRANSVERSICOLLIS, Chaud.

Sat nitidus; lævis; niger, elytris violaceo-marginatis; capite lato, brevi, supra oculos unipunctato; sulcis frontalibus profundis sat parallelis, antice fortiter divergentibus, postice quatenus oculi productis; prothorace quam longiori fere duplo latiori, antice quam postice vix latiori, leviter canaliculato, angulis anticis productis, posticis bene determinatis nihilominus rotundatis, basi bisinuata in medio nullo modo concava; elytris prothoraci latitudine æqualibus, sat late reflexo-marginatis, antice truncatis, suturam versus conjunctim late leviter concavis, tibiis anticis externe tridentatis. [Long. 9, lat. $3\frac{1}{2}$ lines.]

The prothorax is scarcely less (as 8 to $4\frac{1}{2}$) than twice as wide as its length down the middle. The basal lobe (which is wide and well-defined, though not much produced hindward) has its hind outline evenly convex all across—not at all concave or emarginate in the middle. The elytra are separately convex transversely—so that if their upper outline be viewed, looking from the head across the prothorax, it appears to be widely and feebly but evidently concave in the middle. [It is quite possible that this may be caused merely by slight immaturity.] The row of punctures on the declivous front margin of the elytra contains 3 on each side placed close together on the external half of the base, and a row of punctures runs just within the lateral margin, but the discoidal punctures of the elytra are entirely wanting. On the anterior tibiæ the teeth resemble those of *Calliscapterus campestris*, Mael. The inferior ridge reaches the tarsus.

The absence of discoidal elytral punctures approximates this species to *Carenum ineditum*, Macl., and some others which have only two teeth on the external margin of the front tibiæ. Its nearest ally, however, appears to be *C. Macleayi*, Blackb., from which it differs (independently of colour) by the longer frontal sulci of its head; its wider prothorax, the hind angles of which are less rounded off—the base being a gently bisinuate line as long as, and (along its whole length) parallel to, the front margin; and its elytra narrower anteriorly.

McDonnell Ranges, Central Australia; taken by Mr. A. S. Wild.

N.B.—The above species appears to be identical with *Carenum transversicolle*, Chaud., but as its author has not described that species, having done little more than mention some of its differences from its allies, I think it is well to furnish a formal description.

CLIVINA BOVILLÆ, sp.nov.

Minus angusta; minus parallela; minus convexa; subtus picea; supra obscure ferruginea, maculatum vix distincte infuscata, antennis palpis pedibusque testaceo-brunneis; prothorace postice quam antice fere tertia parte latiori, basi utrinque lineatim impresso, quam longiori vix latiori; elytris fortiter striatis, striis sat fortiter punctulatis, stria 4^a basi extrorsum contorta; clypeo ad latera rotundato vix producto; tibiis anticis externe dentibus 4 instructis, dente summo parvo, 2^o sat magno, 3^o majore etiam, apicali ceteros longitudine superanti. [Long. $3\frac{1}{5}$, lat. $\frac{4}{5}$ lines (vix).

This species may be placed in the "section" of M. Putzeys' "Revision Gen. des Clivinides" in which the author places *C. Australasie*, *C. vagans*, &c. The clypeus is only very gently concave in front, those parts which M. Putzeys calls its "wings" being scarcely defined but being fairly distinct from what he calls the "large wings" of the head. The structure of these parts is not unlike the same in *C. melanopyga*, Putz., but the front of the clypeus is even less concave. The portion of the head behind the clypeus is vaguely impressed down the middle, and its front part

is comparatively strongly punctured. The interstices of the elytra are rather strongly convex, somewhat more so than in *C. melanopyga*, the striæ being not quite so distinctly punctured as in that species. The external teeth of the anterior tibiæ are considerably longer and more slender than in *C. melanopyga*, the 4th (*i.e.*, the uppermost) though small and blunt being quite well defined. The apical spine on the inner margin of the same tibiæ is much larger in the male than in the female. The flanks of the prosternum are opaque on a sharply limited space (owing to the presence of close longitudinal strigosity), the opaque space also bearing some transverse strigæ which are much more continuous and deeply impressed than the longitudinal ones. This sculpture is exceptionally strongly developed,—much more so *e.g.* than in *C. melanopyga*.

N. Territory of S. Australia ; taken by Mrs. Bovill.

CLIVINA ÆQUALIS, sp.nov.

Sat angusta ; sat parallela ; sat convexa ; picea ; antennis, palpis, elytris, pedibusque, plus minus ferrugineis ; prothorace postice quam antice vix latiori, basi utrinque haud lineatim impresso, quam longiori paullo latiori ; elytris fortiter striatis, striis sat fortiter punctulatis, stria 4^a basi extrorsum contorta ; clypeo ad latera rotundato vix producto ; tibiis anticis externe dentibus 4 instructis, dente summo parvo, 2^o sat magno, 3^o majore etiam, apicali ceteros longitudine superanti.

[Long. $2\frac{3}{5}$, lat. $\frac{3}{5}$ line.

Resembles the preceding, but differs as follows :—it is a little more elongate, parallel and convex ; the head and prothorax are of a darker colour ; the clypeus is flatter and still less distinct from its “ wings ;” the part which M. Putzeys calls the “ anterior elevation ” being not distinctly raised, and having no transverse furrow behind it ; the head is wider and less shining ; the prothorax is slightly wider in proportion to its length, being by measurement slightly transverse (to the eye it appears scarcely so), it is scarcely at all narrowed forward, the sides are strongly wrinkled transversely except near the front, the longitudinal

linear impression near the base on either side is entirely wanting, the central longitudinal channel is much stronger; the striæ of the elytra are much more conspicuously punctulate except near the apex, the external teeth on the anterior tibiæ are even longer; the tarsi (especially the hind ones) are much more slender.

N. Territory of S. Australia; taken by Mrs. Bovill.

CLIVINA DORSALIS, sp.nov.

Sat angusta; sat parallela; minus convexa; picea; antennis, palpis, mandibulis (apice excepto), clypei lateribus, elytris latera versus, pedibusque, testaceis; prothorace postice quam antice vix latiori, basin versus utrinque lineatim longitudinaliter fortiter impresso, quam longiori vix latiori, sat fortiter punctulato; elytris fortiter striatis, striis sat distincte punctulatis, stria 4^a basi haud extrorsum contorta; clypeo ad latera breviter acute dentato; tibiis anticis externe dentibus 3 (dente 4^o obsoleto) instructis.

[Long. 2-2 $\frac{2}{5}$, lat. $\frac{2}{5}$ - $\frac{3}{5}$ line.

The pallid colouring on the elytra is very variable, in some instances being almost obsolete, in others (perhaps immature) occupying the whole surface; in average specimens the elytra bear 3 stripes of about equal width, the middle one common and piceous, the lateral ones pallid.

Apparently near *C. suturalis*, Putz., but differing from it in the prothorax being (by measurement) not at all longer than wide, and in the 4th stria not being deflected outwards at the base to meet the 8th stria which, however, meets the 5th stria, as in *C. melanopyga*.

Port Lincoln; also near Adelaide.

CLIVINA BOOPS, sp.nov.

Minus angusta; parallela; convexa; nigra; antennis, palpis, mandibulis (apice excepto), clypei lateribus, pedibusque, rufis; capite lato; prothorace postice quam antice haud latiori, basi utrinque nullo modo (nonnullis exemplis obsoletissime) lineatim

longitudinaliter impresso, quam longiori fere quarta parte latiori, sat fortiter rugato latera versus sat fortiter punctulato; elytris sat fortiter striatis, striis sat fortiter punctulatis omnibus antice liberis,—plurimis postice obsoletis, interstitiis minus convexis; clypeo utrinque rotundatim minime ultra alam producto; tibiis anticis externe dentibus 4 (ut *C. æqualis*) instructis; menti dente medio sat acuto sat elongato. [Long. $3\frac{1}{5}$, lat. $\frac{4}{5}$ line.

Var. (? immat.) Corpore toto testaceo.

The distinguishing features of this species are:—tooth of mentum somewhat pointed and not much shorter than the lateral lobes of the same; wide head (evidently across the eyes, which are little convex, more than three-quarters the width of the prothorax); clypeus roundly prominent on either side and slightly more prominent than the lateral wings which are clearly distinct from it; vertex strongly punctulate on a space of variable size,—body of even width from the front of the prothorax to near apex of elytra; prothorax by measurement nearly a quarter (to the eye scarcely) wider than long and having its surface strongly wrinkled transversely and punctured towards the sides, without any longitudinal line impressed on either side near the base, no two elytral striæ distinctly connected in front, &c., &c.

Port Lincoln; also near Adelaide.

CLIVINA ADELAIDÆ, sp.nov.

Sat angusta; parallela; minus convexa; nigra; antennis, palpis, mandibulis (apice excepto), clypei lateribus, pedibusque, plus minus rufescentibus; prothorace postice quam antice vix latiori, postice utrinque lineatim longitudinaliter impresso, sat lævi, longitudine latitudini æquali; elytris sat fortiter striatis, striis punctulatis, stria 4^a basi extrorsum contorta, interstitiis minus convexis; clypeo utrinque obsoleto minime ultra alam producto; tibiis anticis externe dentibus 4 (ut *C. æqualis*) instructis.

[Long. $3\frac{2}{5}$, lat. $\frac{4}{5}$ line.

Var. (? immat.) Minor, corpore toto testaceo.

Resembles *C. boops* but is much more elongate with the prothorax very much narrower, 4th stria of elytra curved outward at the base to join the 8th.

Adelaide district.

CLIVINA TUBERCULIFRONS, sp.nov.

Sat angusta; minus parallela; minus convexa; ferruginea; capite inter oculos bituberculata; prothorace postice quam antice fere tertia parte latiori, postice utrinque lineatim longitudinaliter impresso, sparsim obscure rugato, longitudine latitudini æquali; elytris sat fortiter striatis, striis punctulatis, stria 4^a basi extrorsum contorta, interstitiis vix convexis; clypeo utrinque vix ultra alam producto; tibiis anticis externe dentibus 4 (ut *C. æqualis*) instructis. [Long. 2. lat. $\frac{1}{2}$ line.

Distinguished from all the previously described Australian species of *Clivina* by the protuberance on either side of the frontal impression, and from nearly all by its diminutive size.

CLIVINA WILDI, sp.nov.

Minus angusta; minus parallela; sat depressa; picea, prothorace rufescenti, antennis, palpis, pedibusque, testaceis; prothorace postice quam antice quarta parte latiori; basi utrinque leviter lineatim longitudinaliter impresso, quam longiori vix latiori; elytris fortiter striatis, striis fortiter punctulatis, stria 4^a basi extrorsum haud contorta, interstitiis convexis; clypeo utrinque ultra alam producto; tibiis anticis externe dentibus 3 (dente 4^o obsoleto) instructis. [Long. 2 $\frac{1}{5}$, lat. $\frac{3}{5}$ line (vix).

The 5th (not 4th) stria connecting on the base of the elytra with the external stria, together with the small size of the insect, and the uppermost tooth of the anterior tibiæ scarcely indicated will distinguish this from the previously described species.

McDonnell Ranges, Central Australia; taken by Mr. A. S. Wild, an intrepid explorer to whom I have much pleasure in dedicating this interesting little species.

CLIVINA DEBILIS, sp.nov.

Sat angusta ; sat parallela ; minus depressa ; nigra ; antennis, palpis, mandibulis (apice excepto), clypei lateribus et pedibus, testaceis ; prothorace postice quam antice vix latiori, postice utrinque lineatim longitudinaliter impresso, sat lævi, longitudine latitudini æquali ; elytris sat fortiter striatis, striis fortiter punctulatis postice subobsoletis, stria 4^a basi haud extrorsum contorta ; interstitiis sat planis ; clypeo utrinque haud ultra alam (hac vix distincta) producto ; tibiis anticis externe dentibus 3 (dente 4^o obsoleto) instructis. Long. 2 $\frac{1}{5}$, lat. $\frac{3}{8}$ line (vix).

Var. (?) Minor (long. 2 lines), dilutior, paullo minus convexa.

The 5th (not the 4th) stria connecting at the base with the 8th distinguishes this species from most of its congeners ; from the rest it may be separated by the front outline of the clypeus not projecting on either side beyond the "wings," the prothorax having a distinct longitudinal impressed line on either side near the base, and the uppermost (4th) tooth of the anterior tibiæ being scarcely indicated.

Port Lincoln. The var. ? occurs near Adelaide.

CRATOCERIDES.

PHORTICOSOMUS RANDALLI, sp.nov.

Piceo-brunneus ; nitidus ; antennis, labro, palpis, pedibusque, rufescentibus ; prothorace obsolete canaliculato, antice subtruncato, postice quam antice haud angustiori, angulis posticis rotundatis ; elytris sat fortiter striatis, striis latera versus gradatim obsoletis. [Long. 6, lat. 2 $\frac{2}{3}$ lines.

Closely allied to *P. felix*, Schaum, and *P. brunneus*, Blackb. From the former it differs in the colour of the antennæ, in the prothorax almost truncate in front, with hind angles quite rounded off, and a distinct flattened transverse space in front of the base (as in *P. brunneus*) and in the elytral striæ becoming quite feeble towards the lateral margins. From *P. brunneus* it

differs by its considerably larger size, prothorax not narrowed behind and having the hind angles rounded off, and by the enfeebling of the lateral striæ on the elytra. All the other previously described species are either very much larger or very much smaller, except *P. Nuytsii*, Cast., from Western Australia, which is described as a black insect with the prothorax almost rectangular behind.

N. Territory of S. Australia ; taken at Barrow's Creek by Mr. W. D. Randall, to whom I have dedicated it.

TRIGONOTOMIDES.

ABACETUS.

It seems at least *doubtful* whether the Australian species attributed to *Abacetus* and to *Drimostoma* are generically distinct *inter se*. Baron de Chaudoir (Bull. Mosc. 1870, p. 375), expresses the opinion that *D. vicina*, Cast., may be even *specifically* identical with his (de Chaudoir's) *A. australis*, but makes no comment on Castelnau's other species. Another of the insects referred (though in this case doubtfully) to *Drimostoma* by Castelnau (*D. ? tasmanica*) is asserted by Bates (Cist. Ent. II. 321) to be an *Oopterus*, a genus which Lacordaire associates with *Cnemacanthus*. Of the remaining four of Castelnau's *Drimostoma*, one (*Thouzeti*) is said to be very like *vicina* from which it is perhaps safe to infer that de Chaudoir would have called it an *Abacetus*. The rest are from the mountains of Victoria ; *D. australis* may be almost anything,—if it be congeneric with *D. vicina* it would necessitate a new name for *Abacetus australis*, Chaud. ; *D. montana* from the description (*e.g.* "thorax not margined laterally") cannot have anything to do with *Drimostoma*, and the same remark would probably apply to *D. alpestris*, which is said to be very like *D. montana*, but the description is so worthless that unless the type can be referred to its identification is hopeless.

According to de Chaudoir *Drimostoma* and *Abacetus* resemble each other very closely in facies,—but that learned writer mentions as the main distinction between them that in the former the

lobes of the mentum are pointed at the apex, while in the latter the lobes of the mentum are rounded at the apex. Both genera were founded by Dejean for African species, some American insects having been doubtfully attributed afterwards to *Drimostoma* and some from the European coasts of the Mediterranean having been attributed to *Abacetus*. M. de Chaudoir expresses doubt as to *Drimostoma* being found in Australia (Ann. Soc. Ent. Belg. Vol. XV.).

I have in my collection a single example each of two species from the Northern Territory of S. Australia which appear to be congeneric with *Abacetus australis*, Chaud., but as the description of that insect merely states the colour and then points out the specific differences between it and *R. flavipes*, Thoms., (from Gaboon), giving no account of the structural characters, I think I shall do well to enumerate some of the characters of the present insects to prevent any inconvenient results in case I should prove to be wrong in supposing them congeneric with de Chaudoir's species.

They both belong to the group which Lacordaire calls "*Trigonotomides*" having the mentum (which drops very abruptly below the plane of the submentum and is separated from it by a strong carina) narrowed forwards, with its front margin only sinuated. The submentum is of peculiar structure, the middle part being a flattened plate bearing three strong longitudinal carinæ pointed in front, on either side of which it (the submentum) becomes somewhat declivous and is limited by a curved keel; the lateral portions of the mentum have a crimped appearance. I have not been able to examine the mentum satisfactorily except with a compound microscope, but probably if a specimen could be spared for the palpi to be removed it might be done with a Coddington lens. Of the maxillary palpi the 2nd and 4th joints are subequal, the 3rd being shorter; the 2nd is depressed and dilated, the 3rd is gradually dilated from the base to the apex and the 4th is narrowed from the base to the apex, these palpi thus not differing very much from those of *Simodontus* except in the second joint being considerably more dilated. Of the labial palpi the 2nd joint

is slightly longer than the 3rd of the maxillary and is slightly dilated from the base outwards, while the third joint is scarcely shorter than the 2nd and is slightly thickened for a little distance from the base and then attenuated towards the apex, the labial palpi thus scarcely differing from those of *Simodontus*. The prosternum has a wide shallow sulcus down the middle from a little behind the front nearly to the apex; it protrudes a little behind the front coxæ, the protruding part being carinate round its free margin and bearing two strong foveæ on its surface. The intermediate ventral segments bear a large setigerous puncture on either side of the middle line, and are not furrowed transversely. The apical ventral segment in the female bears 4 setigerous punctures along the hind margin,—in the male only 2 punctures which however are very large ones. In the male the anterior tarsi are but little dilated and the basal ventral segment is concave down the front part of the middle line. [It must be remembered that the male and female appertain to very widely distinct species]. The very much lower plane of the mentum as compared with that of the submentum as well as the shape of the former in front, separate these two species widely from all the small Australian *Feronides* known to me. The episterna of the metathorax carry a well defined sulcus immediately within their margin all round so that their edge appears finely ribbed. I cannot discover any suture separating off from the episternum an apical piece (the epimeron); at the apical end of the episternum, however, the marginal sulcus is much further within the border than elsewhere, and I take the portion beyond it to be the epimeron. The episternum (including this piece) is not much less than twice as long as its width in front which slightly exceeds the width of the widest part of the elytral epipleuræ. The mandibles are nearly straight to near the apex where they are incurved and sharply pointed. The labrum is transverse, truncate in front. The head bears a strong transverse sulcus a little behind the labrum; the two ends of the sulcus turn at an angle and run backward on the head, diverging in a curve to the eye; a large deep impression on either side is bounded externally by these

curved lateral sulci. The antennæ when set back reach considerably beyond the base of the prothorax ; they are moderately stout, the 2nd joint short, the rest subequal. The lateral gutter of the prothorax immediately within the turned up edge is wider and stronger than in most of the small *Feronides* (e.g. *Simodontus*) and is continued within the basal angle and a short distance along the base, and then turns and runs forward on the prothorax, forming an extremely strong sulcus. The 3rd interstice of the elytra bears a single puncture at about the middle of its length. In one of my examples the 3rd interstice has another puncture near the front on one elytron only. There is no trace of an abbreviated scutellar stria.

The facies is not unlike that of *Loxandrus*.

ABACETUS SIMPLEX, sp.nov.

♀. Niger, subiridescens ; antennis, palpis, pedibusque, rufescentibus ; prothorace quam longiori tertia parte latiori, antice quam postice sat latiori, medio longitudinaliter fortiter sulcato, antice leviter emarginato, angulis anticis distinctis parum productis, lateribus sat fortiter rotundatis pone medium leviter sinuatis, angulis posticis acute rectis subdentatis, sulco laterali sat lato, sulco utrinque basali sat elongato ; elytris fortiter striatis, striis lævibus, interstitiis minus convexis. [Long. 3, lat. 1 line.

N. Territory of S. Australia ; taken by Dr. Bovill.

As I have not a type of *A. flavipes*, Thoms., I cannot form a very clear notion of *A. australis*, Chaud., but this species seems to differ from it, *inter alia*, in being iridescent and having antennæ of a uniform red colour. It is larger than any of the species of *Abacetus* that have been described by Sir W. Macleay, those nearest it in size, moreover, having the striæ of the elytra punctured. *Drimostoma Thouzeti* and *vicina*, Cast., have dark antennæ, with only the base pale.

ABACETUS CRENULATUS, sp.nov.

♂. Niger ; antennis, palpis, pedibusque rufescentibus ; prothorace quam longiori plus tertia parte latiori, antice quam postice

parum latiori, medio longitudinaliter profunde sulcato, antice parum emarginato, angulis anticis obtusis, lateribus fortiter rotundatis mox ante basin sinuatis, angulis posticis minutis subdentiformibus, sulco laterali lato profundo, sulco utrinque basali minus elongato; elytris profunde striatis, striis fortiter crenulatis, interstitiis fortiter convexis. [Long. $2\frac{1}{2}$, lat. 1 line (vix).

Differs from *A. simplex* by its shorter and wider prothorax of which the sulcus within the lateral margin is much stronger, and by its still more deeply striate elytra, the striæ of the same being crenulate internally, and the interstices very much more convex; the legs (especially the hind femora) are of a darker colour. From *A. australis*, Chaud., and *D. Thouzeti* and *vicina*, Cast., it differs by its unicolorous antennæ and smaller size. Of Sir W. Macleay's species only *A. ater* and *A. angustior* are described as not having the elytral striæ simple; from the former of these it differs by its elytra much wider than the prothorax, and from the latter by its prothorax not "longer than the width." The median sulcus of the prothorax (as in *A. simplex*) is abbreviated at both ends.

N. Territory of S. Australia; taken by Dr. Bovill.

ABACETUS A. MACLEAYI, sp. nov.

A. flavipes, Macl., (nom. præocc.)

The above change in nomenclature seems to be required.

F E R O N I D E S.

PROSOPOGMUS.

Masters' Catalogue attributes 10 Australian species to this genus (or sub-genus), of which at most 3—*Boisduvali*, Cast., *Reichei*, Cast., (these two probably not specifically distinct *inter se*), and *harpaloides*, Chaud.,—seem to be entitled to their place. The error has probably arisen from the fact that de Chaudoir (Ann. Mus. Gen. 1874, p. 594) has most unaccountably placed

under the heading "*Prosopogmus*" a list of all the *Feronides* of Castelnau of which he has ascertained the types to be lost, and Mr. Masters has included these in the genus *Prosopogmus*.

PÆCILUS.

There appears to me to be no satisfactory evidence of the occurrence of any true *Pæcilus* in Australia, as no author in calling any Australian species by the name has mentioned as present that distinctive character of *Pæcilus*—the basal joint of the antennæ carinated. *P. Kingi*, W. S. Macleay, could not be identified without reference to the type. The descriptions of *P. lævis*, Macl., and *sulcatulus*, Macl., do not read like those of *Pæcili*, and that of *P. semiplicatus*, Cast., is quite useless. *P. chlenioides*, Macl., is stated by its author to resemble *P. resplendens*, Cast., which is a *Chlenioideus*.

RHYTISTERNUS BOVILLI, sp.nov.

Minus depressus; piceus, plus minus rufescens; prothorace quam longiori fere tertia parte latiori, postice utrinque bistriato; striis in excavatione vix manifesta positis, lateribus postice vix sinuatis, angulis posticis obtusis haud dentatis; elytris striis 5^a, 6^a, et 7^a plus minus obsoletis; tarsis posticis extus vix perspicue sulcatis.

[Long. 6-6 $\frac{2}{5}$, lat. 2 $\frac{1}{5}$ lines.

Average specimens of this insect are of a shining pitchy red colour, but I have before me a single example the colour of which is almost uniformly pitchy black. The antennæ and legs are fairly robust, resembling those of *R. liopleura*, Chaud., (and therefore very different from those of *R. sulcatipes*, Blackb.). The frontal sulci diverge strongly behind as in *sulcatipes* (in *liopleura* they are nearly parallel). The prothorax is scarcely so wide in front as at the base (in *liopleura* the base is slightly narrower than the front, in *sulcatipes* the base and front are equal); it is nearly a third again as wide as its length down the middle being slightly more transverse than in *liopleura* and *sulcatipes*; the sides are a little

less strongly rounded than in *liopleura*, and behind the middle are scarcely sinuated (in *liopleura* they are decidedly sinuate, in *sulcatipes* not at all); the hind angles are obtuse but not far from rectangular, without the slightest indication of a tooth directed outward (in *sulcatipes* they are much more obtuse, making an angle of about 60° , in *liopleura* they are distinctly dentate and directed outward); the 2 longitudinal sulci at the base on either side are better defined and more distinct from each other than in either *liopleura* or *sulcatipes*, the space separating them being almost on the same plane as the general surface of the prothorax. The striæ of the elytra are almost as in *sulcatipes* being more strongly impressed than in *liopleura*, but the shoulders resemble those of *liopleura* being less produced forward than in *sulcatipes*.

I do not think that this insect is identical with any of those previously described, though it is difficult to be sure owing to the deplorably inferior quality of the descriptions of most of them. Here is an example:—if it is desired to ascertain whether a given specimen is *R. cyathodera*, Chaud., one turns to the description, so-called, of that insect and finds no actual description, but only a few notes on its differences from other species, commencing (I translate the Latin) “differs from *levilatera* in its much wider and shorter prothorax, &c., &c.,” but no positive statement of characters. Thus referred back again to *levilatera* one turns up that species and reads again no *positive* description, but “differs from *liopleura* in its narrower prothorax, not narrowed behind, &c., &c.” This reminds one of “the House that Jack built,” the prothorax of *cyathodera* being thus described as “wider and shorter than that of *levilatera* which is narrower than that of *liopleura*,” and from this tangle it would require a clearer mind than mine to evolve the prothorax of *R. cyathodera*. In this confusion I fear at the risk of being prolix that I must conclude by giving my reasons for not identifying *R. Bovilli* with any previously described species. From *liopleura* and *sulcatipes* I have already distinguished it; *levilatera* is said to have the 5th stria on the elytra “*omnino oblitterata*,” and the external basal sulcus of the prothorax less defined than in *liopleura*; *cyathodera* is said to be an iridescent

insect with the external basal sulcus of the prothorax almost obliterated, and its size is much larger; in *puella* the prothorax is said to be cordate; in *miseria*, Chaud., the prothorax is said to be longer than in *liopleura* with the external basal sulcus "obsolete," and it is implied that the hind angles are dentate; *angustulus*, Macl., seems from the measurements and name to be a much narrower species (though I regard its identity as *possible*); *limbatus*, Macl., appears to be much smaller and very differently coloured.

N. Territory of S. Australia; taken by Dr. Bovill.

RHYTISTERNUS LIMBATUS, Macl.

Last year I met with a single example of a *Rhytisternus*, in the neighbourhood of Lake Eyre, which agrees so well with the description of this remarkable insect that I can hardly doubt its identity, although the type was found at King's Sound, in N.W. tropical Australia. The only discrepancy I notice is in the colour of the antennæ which is described as "piceous," whereas the antennæ in my specimen are of a brownish testaceous colour. The prothorax scarcely differs in any respect from that of the preceding species (*R. Bovilli*, Blackb.) except in having the two basal furrows near the external margin on either side placed in a common impression as in *R. liopleura*; the circular form (from some points of view) of the outer of these (referred to by Sir W. Macleay) seems to be characteristic of the species. The elytra compared with those of *R. liopleura* are more strongly striated and have the humeral angles sharper,—more dentiform,—but not the shoulders more produced.

LEPTOPODUS, Chaud.

This genus—proposed by the Baron de Chaudoir for *Pterostichus holomelanus*, Germ.,—has not been characterised so far as I can ascertain. The following characters will, however, suffice to distinguish it from other *Feronice*:—Basal joint of antennæ not carinate, 3rd interstice of elytra tripunctate, metathoracic

episterna (including the apical piece divided off by a fine suture) considerably longer than its front margin is wide, the front margin being considerably wider than the elytral epipleuræ, and no furrow running within the lateral margin; intermediate ventral segments transversely sulcate as in *Simodontus*, each ventral segment bearing two conspicuous setigerous punctures placed one on either side of (and near to) the middle, the apical segment of the female with an additional setigerous puncture on either side near the margin, prosternum produced widely and strongly behind the front coxæ, the free outline of the produced part edged with a carina, the tarsi externally sulcate, the anterior tarsi with the basal 3 joints in the male strongly dilated and furnished beneath each with two rows (meeting at the base and strongly diverging forward to enclose the base of the rows belonging to the next joint) of very conspicuous white scale-like papillæ, mentum with a wide strongly declivous median tooth, the front of which is arcuately concave in the middle and prominent at the ends.

I am unable to find any structural characters to distinguish this genus from *Simodontus* except the strong declivity of the median tooth of the mentum and the strongly sulcate tarsi. The vestiture of the anterior tarsi in the male does not seem to differ noticeably.

LOXANDRUS.

I doubt whether the Australian species attributed to this genus are really congeneric with the American species for which the name was established, as the mouth organs do not appear to me to tally satisfactorily with the description, but as I have not a type of any of the American species for comparison I shall not venture to propose a new name. I have before me examples from various parts of S. Australia, and some from the Northern Territory, which do not seem to be specifically different *inter se*, although they vary somewhat in size (long. $3\frac{1}{5}$ - $4\frac{1}{2}$ lines), and in some the elytral interstices appear slightly more convex than in others. I should say that *Pæcilus iridescens*, Cast., is most probably this

species. A very notable character of the insect before me is the presence of strong puncturation on the metathoracic episterna and on the sides of the metathorax and ventral segments, such puncturation being coarse and not close in front, and becoming gradually finer and closer hindward. There seem to be no good characters mentioned to distinguish from it *Pæcilus interioris*, Cast., *P. subiridescens*, Macl., and perhaps even *P. atronitens*, Macl.; this latter having "only a trace of iridescence on the elytra," is quite possibly distinct. *Pterostichus levigatus*, Macl., also must be very near it.

SIMODONTUS.

I have lately been trying to identify the insects on which some of the earlier descriptions of the smaller species of *Feronia* (in the wide sense) were made, and have found that it is simply impossible to arrive at any assurance by other means than a comparison with types that are certainly not in Australia, and many of which are almost certainly non-existent. Most of the smaller species of this group appertain to the genus (or sub-genus) *Simodontus*, Chaud., which is characterised in terms that are quite unintelligible, viz., "Elytra ad striam tertiam tripunctata. Cætera ut in *Orthomo*, thoracis angulis posticis rotundioribus." On referring to the description of *Orthomus* (as quoted by Dr. Schaum in the "Insecten Deutschlands;" I have not the original, which appeared in the Bull. Mosc. 1838) one finds no distinct assertion as to the puncturation of the elytra, but a statement of the characters which distinguish *Orthomus* from *Pæcilus* and *Adelosia* (species of both these having the 3rd interstice tripunctate), which does not mention any difference in respect of these punctures. In the absence of a reliable type of *Orthomus* I should be at a loss even to attribute any Australian insect confidently to *Simodontus* were it not that the Baron de Chaudoir has given a further clue in describing the *species* he has attributed to the genus.

The Baron de Chaudoir appears to regard *Argutor australis*, Dej., as the type of *Simodontus*, unfortunately a species quite

hopeless to identify with absolute certainty—at least in Australia. Dejean's description consists of 18 words, followed by a comparison of its subject with *F. barbara* (a species occurring on the eastern shores of the Mediterranean Sea); de Chaudoir (with exceptional facilities for comparison of types) is doubtful as to the insect it is founded on.

Next comes *Simodontus aneipennis*, Chaud., which is fairly well described; but a note at the end of the description says that "it is perhaps the *Feronia australis*, Dej."

In 1865 M. Motschoulsky described what is no doubt a *Simodontus* under the name (*Argutor?*) *antipodum*. [I have not seen the description.]

In 1868 the Count de Castlenau described as *Feronia inedita* an insect which is probably either a *Simodontus* or a *Leptopodus* from the Pine Mountains of Queensland. De Chaudoir in his memoir on the Castelnau collection makes no reference to it, from which it is to be inferred that the type has perished. But the description is, I think, sufficient to enable its identification on a specimen taken in the locality cited if such should turn up, when a more scientific description may be furnished.

At the same time the Count described as species of *Harpalus* two insects (*Fortnumi* and *brunneus*) which in his report on Count Castelnau's collection de Chaudoir asserts to belong to *Simodontus*.*

Three years later Sir William Macleay, in the "Insects of Gayndah," described as *Argutor* three species (*foveipennis*, *nitidipennis*, and *oodiformis*) which de Chaudoir says are *Simodontus*; of these fuller descriptions are desirable pointing out their distinctions from others of the genus.

* I accidentally overlooked this note of de Chaudoir when in the Trans. Roy. Soc. S.A. x. p. 190, I expressed a doubt as to whether *H. Fortnumi* appertained to the *Harpalidæ*, but suggested that if of the sub-family at all it might be a form of *H. Deyrollei*. Mr. Masters also has evidently committed the same oversight in placing the two in *Harpalus*, in his "Catalogue of the described *Coleoptera* of Australia."

In 1873 de Chaudoir described 6 new species of *Simodontus*, but in a manner quite useless to Australian students. Without plainly saying so he seems to assume that the doubt he previously expressed as to the specific distinctness of his *S. æneipennis* and Dejean's *F. australis* was unfounded. Of these 6 species *convexus* is merely compared in brief terms with *australis*, *orthomoides* with *O. berytensis* (a Syrian insect), *transfuga* with *orthomoides*, &c., &c. The Baron subsequently (Ann. Mus. Gen. 1874) expressed the opinion that three of them (he did not specify which) were identical with Sir W. Macleay's three species of *Argutor* from Gayndah.

Finally, in 1888 Sir William Macleay described *S. occidentalis* from King's Sound.

I hardly see any satisfactory way out of this labyrinth, but I think any way is better than remaining in it, until some one is able to examine the types and report on them, which will probably be at the Greek Kalends. Rather than acquiesce in the theory that Australians are to consider themselves barred from giving names to the fauna of their country by the bad descriptions of foreign students, I offer to the Linnean Society, at the risk of eventually proving to have increased the synonymy of some species, descriptions of three *Simodonti* known to me, attributing to existing names two which appear to me likely to be entitled to them, and giving a new name to one which there is not evidence for considering as already satisfactorily named. The species with which I have to deal are all from Southern Australia—one from Mulwala in the south of N.S.W. being the most northern in its habitat; I shall therefore assume that I have none of Sir W. Macleay's species before me, which are all from the north, but unfortunately insufficiently described—the important character of the width of the prothorax at the front as compared with its width at the base (for example) not being alluded to, except in the case of one of them.

SIMODONTUS (HARPALUS) FORTNUMI, Cast.

Latus; sat brevis; nitidus; supra piceus; subtus cum palpis, antennis, pedibusque rufescens vel rufo-testaceus; prothorace quam

longiori dimidia parte latiori, postice quam antice vix latiori, margine antico parum concavo, lateribus sat æqualiter rotundatis, angulis posticis rotundato-obtusis, basi media leviter rotundatim emarginata, striola basali externa vix distincta; elytris basi externa nullo modo dentatis, subtiliter striatis, interstitiis planis, interstitio 3° tripunctulato. [Long. $3\frac{2}{3}$, lat. $1\frac{1}{2}$ lines.

The only species known to me (of the genus) which has the length of the elytra down the suture not at all greater (by measurement) than twice their width across the base. The prothorax scarcely (by measurement the base is $\frac{1}{5}$ again as wide as the front) narrower across the front than across the base is also a good character, nor have I seen any other species having the prothorax as much as half again as wide as long. There is a very distinct transverse strip marked more or less distinctly with longitudinal scratches, and abruptly depressed below the general plane of the surface, running along the base of the prothorax from one to the other of the inner longitudinal foveæ. The external basal fovea on either side close to the hind angle of the prothorax is very feeble and from some points of view seems to be quite non-existent. The large setigerous puncture near the hind angle of the prothorax is (as usual in the genus) very distinct and well within the angle. The concavity of outline on the base of the prothorax is very clearly confined to the middle part of the base. The abbreviated stria close to the scutellum is exceptionally short. The transverse undulations on the prothorax mentioned by Castelnau are variable in intensity but never very noticeable without close examination. The episterna of the metathorax are wider than in the allied species.

Extremely abundant in S. Australia. I have not seen it further west than Yorke's Peninsula.

N.B.—I think there is scarcely any doubt that this insect is identical with *S. curtulus*, Chaud., and also with *S. (Harpalus) brunneus*, Cast. It seems to differ from *S. foveipennis*, Macl., and *S. nitidipennis*, Macl., by its short scutellar stria, from *S. oodiformis* by the feebler striation of its elytra, and from most of the other

described species by its prothorax not narrowed anteriorly. The description of *S. brunneus* is quite useless, giving no information whether the prothorax is narrowed anteriorly and dismissing all the sculpture of the prothorax with the brief expression "impressions moderately strong,"—but as it fits *S. Fortnumi* very well as far as it goes and is founded on specimens from Adelaide I feel no doubt of its identity.

SIMODONTUS AUSTRALIS, Dej.

My collection contains a single example taken at Port Lincoln which agrees very well with Dejean's description of this species. Unfortunately the description is so short that it is easy to suppose there may be other species that will fit it equally well, and as no more precise indication is given of the locality of the type than "New Holland" there is nothing but the description to guide one in selecting an insect to bear the name. However, I claim the name for this S. Australian species by adding to Dejean's diagnosis such particulars as will unmistakably associate the species in question with the name, feeling sure that nothing could dissociate the two unless it might be a reference to the original type. If that can be made and my present memoir should provoke someone to make it and set me right, I shall be very glad.

Minus latus; minus brevis; supra piceo-niger; subtus cum palpis antennis tibiis tarsisque rufescens, femoribus picescentibus; prothorace quam longiori tertia parte latiori, postice quam antice tertia parte latiori, margine antico sat concavo, lateribus leviter sat æqualiter rotundatis, angulis anticis prominulis, posticis rotundato-obtusis, basi rotundatim emarginata, striola basali externa oblitterata; elytris basi externa nullo modo dentatis, sat fortiter striatis, interstitiis externis postice angustis convexis, interstitio 3° tripunctulato. [Long. $3\frac{3}{5}$, lat. $1\frac{2}{5}$ lines (vix).

Compared with *S. Fortnumi* this insect is very evidently longer, narrower, and more parallel; the head is smaller in proportion to the other parts; the prothorax is longer and flatter, more concave in front, with the front angles more prominent and less obtuse,

and the dorsal channel continued to the base, it is more narrowed towards the front; the inner longitudinal impression on either side at the base is longer and more sharply defined and the outer one quite or almost obliterated; the concavity of the basal outline is much wider, the sides of the base, moreover, not being at all directed obliquely hindward as well as inward from the basal angles (as they are in *Fortnumi*); the elytra have much stronger striation and the lateral interstices become near the apex linear convex ridges; the abbreviated stria near the scutellum is much longer than in *S. Fortnumi*, reaching almost to the sutural stria. The elytra a little behind the middle are slightly wider than at the base.

Port Lincoln.

SIMODONTUS MURRAYENSIS, sp.nov.

Angustus; piceus; capite prothoraceque obscure rufis (huic nonnullis exemplis marginibus rufo-testaceis), antennis palpis pedibusque rufis; prothorace quam longiori tertia parte latiori, postice quam antice fere tertia parte latiori, margine antico sat concavo, lateribus leviter arcuatis, latitudine majori ante medium posita, angulis anticis prominulis posticis fere rectis, basi late rotundatim emarginata, striola basali externa distincta; elytris basi externa minute dentatis, sat fortiter striatis, interstitiis externis postice sat angustis subconvexis, interstitio 3° tripunctulato.

[Long. $3\frac{1}{5}$, lat. $1\frac{1}{10}$ lines.

This species differs from *S. Fortnumi*, Cast., in most respects in which *S. australis* differs from it; instead however of the external longitudinal impression at the base of the prothorax being obliterated or nearly so that impression is much better defined than in *S. Fortnumi*, and the concavity of outline of the base of the prothorax is almost evenly continuous from one hind angle to the other; the striation of the elytra moreover is not much stronger than in *Fortnumi*, but the lateral interstices are narrower and somewhat convex near the apex (less so however than in *S. australis*), while the elytra instead of being somewhat dilated behind the middle are at their widest very little behind the front whence they narrow continuously (though very slightly and gradually).

hindward. From *S. australis* this species may be known by its still narrower and more parallel form, the well defined outer impression on either side at the base of the prothorax, the continuous concavity of outline all across the base of the prothorax, the somewhat finer striation of the elytra the outer interstices of which are less narrow and convex behind, &c., &c. From both it differs in the distinct though very minute tooth-like prominence of the external apex of the basal keel-like line of the elytra, and its much more nitid surface.

Mulwala, N.S.W. ; taken by Mr. T. G. Sloane in refuse from a flood in the Murray.

N.B.—It is possible that this may be identical with *S. elongatus*, Chaud. That species however is described as having an iridescent reflection, and in any case I do not think its name can stand as it has been given by the Baron de Chaudoir himself to two species in other sections of *Feronia*.

MICROFERONIA, gen.nov.

♂. Mentum breve, antice minus fortiter emarginato, dente medio bifido instructo. Palporum articulus ultimus ovalis, apice sat acuminatus ; metathoracis episternum (parte apicali pone suturam distinctam inclusa) quam latius fere dimidia parte longius, intra margines anteriorem interioremque sulcatum, margine anteriori quam elytrorum epipleura paullo latiori ; segmenta ventralia haud transversim sulcata, segmento apicali punctis setigeris (antice, prope medium utrinque, postice 4 ad marginem apicalem, positis) instructo, segmentis 3 præcedentibus puncto setigero utrinque prope medium instructis ; antennæ sat robustæ, articulo 1° sat elongato, ceteris brevioribus, 2° submoniliformi ; labrum transversum, antice leviter emarginatum, utrinque tumidum ; oculi sat magni, prominuli, sat grosse granulati ; elytrorum interstitium tertium unipunctatum ; tarsorum anticorum articuli basales 3 sat fortiter dilatati.

♀. Latet.

It should be noted that in this genus (as in many others of the *Feronides*) the bifid tooth of the mentum does not project forward as an uninterrupted continuation, but is a separate piece divided from the mentum by a perfectly distinct suture and is strongly declivous. This structure may readily be observed with an ordinarily strong lens in many of the larger *Feronides* (*Prionophorus*, *Notonomus*, *Sarticus*, &c.). In *Rhytisternus*, *Simodontus*, and others, the tooth of the mentum is more a continuation of the general plane of the surface. In small species where the tooth of the mentum is strongly declivous it is extremely difficult to see. In the present insect, although it is quite distinct under a compound microscope, I cannot obtain a satisfactory sight of it with a Coddington lens.

The labrum, too, is very peculiar, the lateral portion on either side being strongly tumid, so that the middle portion appears to be a sulcus. Another noteworthy character consists in the two large strong punctures placed in the front part of the apical ventral segment,—one on either side of, and close to, the middle line. The palpi, too, having their apical joint unusually long and dilated, are peculiar. The basal 3 joints of the antennæ are glabrous, the 4th belonging to the pubescent series.

The small insect for which I propose this name has the facies of *Loxandrus*. It also somewhat resembles *Notophilus* (*Anisodactylidæ*), from which the glabrous 3rd joint of the antennæ will at once distinguish it.

MICROFERONIA ADELAIDÆ, sp.nov.

Ovalis; sat convexa; nitida; piceo-nigra, supra iridescens; labro, mandibulis, antennis (his apicem versus vix infuscatis), palpis, pedibus, et elytrorum sutura margineque laterali, testaceis; prothorace leviter transverso, antice quam postice paullo angustiori, canaliculato, latitudine majori ante medium posita, margine antico subtruncato, lateribus leviter rotundatis postice haud sinuatis, angulis posticis subrotundatis, sulco longitudinali elongato

utrinque ad basin posito; elytris fortius striatis, striis lævibus, interstitiis planis, stria abbreviata scutellari foveiformi, basali.

[Long 2 (vix), lat. $\frac{4}{5}$ line.

Near Adelaide; a single example.

ANCHOMENIDES.

LESTIGNATHUS MINOR, sp.nov.

Sat elongatus; sat robustus; niger vix viridi-æneus; antennis (articulis basalibus 3 plus minus piceis exceptis), palpis, tarsisque rufescentibus; pedibus piceis; capite sat angusto, oculis magnis prominulis; prothorace quam longiori dimidia fere parte latiori, antice quam postice sat angustiori, pone marginem anticum breviter profunde transversim impresso, sat fortiter canaliculato, lateribus ab angulis anticis (his obtuse productis) ad basin gradatim magis fortiter explanatis, angulis posticis rotundatis; elytris quam prothorax vix duplo latioribus, fortiter striatis, striis lævibus, interstitiis (præsertim postice) convexis. [Long. 5, lat. $2\frac{1}{2}$ lines.

This species has something of the facies of *Agonum*.

Port Lincoln; a single example was found running in the sunshine on sandhills behind the beach.

PLATYNUS MARGINELLUS, Er.

I have in my collection a series of specimens from various localities which tally perfectly with Erichson's description, but if I am right in my identification (of which I feel no doubt) that description omits a very distinctive character,—viz., that the 3rd stria on the elytra is conspicuously deepened from near its base to about the middle, the 5th stria also presenting a similar structure less conspicuously near the apex. Specimens from Western Australia appear to be a little more robust in build, with slightly stouter antennæ, these latter and the legs being of a paler colour than in average examples taken near Adelaide, but there seems no reason to consider them as specifically distinct. I suspect that *Anchomenus*

nigro-æneus, Newm., is the same insect. The only noteworthy differences between the two descriptions are that Newman does not mention the reddish pitchy colour of the extreme margin of the elytra (which is scarcely noticeable in some examples before me) and that he calls the striæ of the elytra "haud puncta," while Erichson says "striis omnium subtilissime punctulatis."

PLATYNUS MURRAYENSIS, sp.nov.

Elongatus ; parallelus ; testaceo-brunneus, pedibus dilutioribus ; prothorace capite parum latiori, quam longiori vix latiori, subtiliter canaliculato, basi margini antico latitudine æquali, lateribus leviter arcuatis, latitudine majori mox ante medium posita, angulis, posticis obtusis ; elytris subtiliter striatis, striis vix perspicue punctulatis, stria 3^a ante medium manifeste profundiori.

[Long. $4\frac{2}{5}$, lat. $1\frac{2}{5}$ lines.

The width of the prothorax scarcely exceeds that of the head across the eyes ; the elytra are unusually narrow in proportion to the prothorax (as 14 to 9) ; the prothorax is scarcely $\frac{1}{6}$ wider than long. This species bears some superficial resemblance to the European *Anchomenus livens*, Gyll., but is considerably narrower and more elongate. It is at once distinguished from *P. marginellus*, Er., by its much more elongate form and prothorax scarcely wider than long, as well as by its colour, and the less noticeable deepening of the 3rd stria of the elytra.

Murray Bridge, S.A. ; on swampy ground.

HYDROPHILIDÆ.

HYDROBIOMORPHA HELENÆ, sp.nov.

Sat convexa ; sat late ovalis ; nitida ; subtus dense breviter pubescens, piceo-rufa ; supra crebre minus subtiliter punctulata, olivaceo-nigra ; elytris vittis 6 viridibus notatis ; labri et clypei parte anteriori, palpis (apice summo nigro excepto), antennis (articulis ultimis 3 piceis exceptis) et pedibus, rufo-testaceis ;

prothoracis angulis posticis vix rufescentibus; capite prothorace et elytris punctis majoribus seriatim (ut *H. Tepperi* dispositis) instructis, his capillos subtiles ferentibus; mesosterni carina antice haud abrupte declivi. [Long. 6-7, lat. 3-3½ lines.

Maris palporum maxillarium articulo 3° valde dilatato.

Of the elytral stripes (which are of a dull pale green colour) the first is close to the suture, the next 4 coincide with the rows of larger punctures, the last is very near to the lateral margin. Apart from colour this species differs from *Tepperi* as follows,—it is a broader insect with less parallel sides, the surface is a little more conspicuously punctulate, the hind angles of the prothorax are less rounded off, the penultimate joint of the maxillary palpi in the male is very much more strongly dilated, and the mesosternal carina is much less abruptly declivous in front. This latter character, *inter alia*, will distinguish the species from *H. Bovilli*.

I observe in the three species of this genus a character that had escaped my attention when I described the generic characters;—the mesosternal keel is nicked by a little emargination close to its anterior declivity, and this makes the extreme front appear as a small conical tubercle.

I have dedicated this insect to Mrs. Bovill, who has recently given me three specimens of it from the N. Territory of S. Australia, and whose explorations in that interesting region have brought to light not a few new species.

LONGICORNES.

MICROTRAGUS ASSIMILIS, sp.nov.

Dense pallide squamulosus, palpis testaceis, mandibulis nigris; prothorace (spinis lateralibus exclusis) quam latiori paullo longiori, antice quam postice vix angustiori, supra fortiter depresso, utrinque spina robusta conica instructo, supra leviter (ad latera crassissime) punctulato, lateribus leviter arcuatis; scutello valde

transverso, transversim concavo ; elytris prothorace (spinis laterali-
bus inclusis) sat latioribus, carinis 2 (discoidali integra, externa
serrata) instructis, illa anticespinam robustam extrorsum inclinatam
formanti, parte dimidia discoidali antica sparsim subtiliter (postica
vix. perspicue) punctulata, parte declivi laterali antice granulata
postice sparsim subtiliter punctulata, apice singulatim oblique
truncato explanato. [Long. 11, lat. 4 lines.

The entire surface, including the underside, antennæ and legs is covered with even, very close, adpressed scale-like pubescence of a pale drab colour, slightly darker on the sides of the prothorax, and is devoid of erect hairs save a few fine and inconspicuous ones on the prothorax and antennæ ; the large coarse punctures on the declivous sides of the prothorax, however, each contain a small granule not rising above the surface and concolourous with it ; the granules on the front part of the sides of the elytra are black and shining. A broad space down the middle of the prothorax is devoid of punctures. The spine at the base of each discoidal carina is very little raised above the surface, its projection being almost wholly lateral. The discoidal carinæ are pitted on their sides posteriorly with a few large punctures which give them a serrated appearance when viewed from above, but their upper outline viewed from the side is seen to be almost entire, a little waviness being noticeable in the hinder part. The apex of each elytron is explanate and obliquely truncate, the external end of the truncation joining the lateral margin in a somewhat angular manner.

Allied to *M. Waterhousei*, Pasc., and *M. Mormon*, Pasc. It differs, *inter alia*, from the former by the absence of hairs from the body, and by the discoidal carina not being a row of tubercles, —from the latter by the absence of hairs and by the differently formed apex of the elytra.

Fowler's Bay.

MICROTRAGUS ALBIDUS, sp. nov.

Dense squamosus, squamis fuscis griseis et albidis confuse intermixtis, palpis testaceis, mandibulis nigris ; setulis erectis

brevibus nigris (nisi sub lente vix perspicuis) sparsim vestitus; capite pedibusque certo adspectu totis albis; prothoracis spinis lateralibus et disco antice, utrinque albis; antennis fuscis, articulis singulis basi albis; prothorace (spinis lateralibus exclusis) quam longiori parum latiori, antice quam postice paullo angustiori, supra parum depresso, utrinque spina brevi conica instructo, supra fortiter subcrebre (ad latera crassissime) punctulato, lateribus leviter arcuatis; scutello haud transverso, apice subacuminato: elytris prothorace (spinis lateralibus inclusis) vix latoribus carinis 2 serratis instructis, carina discoidali antice processum magnum obtusum suberectum formanti; parte dimidia discoidali antica subtiliter sat crebre (postica vix perspicue) punctulata; partibus tertiis anticis 2 declivibus lateralibus, sat crebre granulatis; apice singulatim suboblique truncato vix explanato. [Long. 10, lat $3\frac{1}{2}$ lines (vix).

Differs from *M. Waterhousei*, Pasc., *inter alia* by the longitudinal line on the head running very conspicuously the whole length from the clypeus to far behind the level of the eyes, by the length of the scutellum equal to the width of the same, by the truncate apices of the elytra, by the shape of the elytral carinæ—which are continuous, though their outline (from any point of view) appears serrated—by the form of the process at the base of the inner carina, which closely resembles the pommel of a lady's saddle—being compressed, with a roundly truncate apex.

Differs from *M. Mormon*, Pasc., and from *M. assimilis* in many respects, and especially in the totally different scutellum.

When closely examined this species appears to be rather closely sprinkled all over with minute snowy-white spots, such spots consisting of single white scales interspersed with the darker ones.

W. Australia; sent to me by Mr. T. G. Sloane.

MICROTRAGUS MACULATUS, sp.nov.

Dense pubescens; pube in corpore subtus in capite in antennis in pedibus et in prothoracis elytrorumque lateribus grisea, in pro

thorace supra et in elytrorum maculis nonnullis nigra, in prothoracis maculis nonnullis et in elytrorum partibus discoidalibus (maculis nigris exceptis) fulva; prothorace (spinis lateralibus exclusis) quam latiori paullo longiori, antice quam postice haud angustiori, supra sat convexo, utrinque spina magna robusta conica instructo, rugulose crassissime punctulato, lateribus minus fortiter arcuatis; scutello parvo elongato-triangulari; elytris prothorace (spinis lateralibus inclusis) vix latioribus, supra sat leviter (latera versus grosse) sparsim punctulatis, carinis 2 simplicibus instructis (exteriori antice obsoleta, altera antice spinam robustam obtusam suberectam formanti), apice minute divaricatis; corpore toto, antennis, pedibusque, setis plus minus squamiformibus (alteris albidis alteris nigris) vestitis. [Long. $7\frac{1}{2}$, lat. $2\frac{1}{2}$ lines.

The antennæ (by measurement) are slightly more than $\frac{2}{3}$ the length of the whole insect. The spots of fulvous pubescence on the prothorax are not very conspicuous,—one occupies the centre of the disc, another (smaller) is on either side a little in front of the middle. The black spots on the elytra are extremely conspicuous and are arranged as follows;—about 9 small spots down each side of the suture (the last 3 or 4 more or less confluent on each row),—the basal tubercle and about 4 spots (the 2nd and 3rd largest) on the discoidal carina,—a very large spot of irregular form extending from near the lateral margin to near the discoidal carina and longitudinally from the apex of the basal $\frac{1}{5}$ of the elytron to the middle,—two or three spots on the defined part of the external carina; all the punctures on the elytra also more or less black.

Near *M. Arachne*, Pasc., and *sticticus*, Pasc. From the former it differs *inter alia* in colour (*e.g.* head pale grey instead of dark brown), also in having the external elytral carina scarcely traceable except in its hinder half instead of “entire and well marked;” from the latter in having the pubescence of the black spots (apart from colour) quite similar to that of the rest of the surface instead of “composed of stiff erect hairs * * * raised above the surrounding pubescence.” The discoidal carina is bent round towards

the suture at its apex, but does not reach the latter. Probably the black spots are subject to more or less variety.

Barrow's Creek, N. Territory of S. Australia ; taken by Mr. W. D. Randall.

ATHEMISTUS BITUBERCULATUS, Pasc.

I have before me specimens—one at least of them from Gippsland, Vict., (taken by Mr. T. G. Sloane)—which agree with the description of this species in every respect except the puncturation of the head, which in all of them is very distinct though sparse and rather fine. Mr. Pascoe says, "head almost impunctate except on the vertex." I can hardly think the insect distinct from that Mr. Pascoe described.